

**REMARKS**

**A. The Section 112, First Paragraph Rejections**

The Applicants appreciate the Examiner's withdrawal of many of the previous Section §112 rejections.

In the instant Office Action the Examiner maintains only the 35 U.S.C. §112, second paragraph, rejections of claims 16-18. The Examiner states that it is "unclear what the group elements" in these claims "actually is". Further, the Examiner states that "there appears to be no infused meaning by the grouping of these elements" and that the grouping is confusing in light the elements in other claims. The Applicants respectfully disagree and traverse these rejections for at least the following reasons.

Each of dependent claims 16-18 contain the phrase: "...wherein the at least one unit is selected from the group consisting of...". Thereafter, each claim presents a selection of a number of non-dedicated, processing units that may be connected to one or more ULR optical signals by the optical switch set forth in independent claim 1.

The common feature shared by each of the claimed processing units is that each one is: (a) non-dedicated; and (b) connected by the same switch to one or more ULR optical signals.

As far as Applicants can determine, there is no USPTO rule, BPAI or CAFC decision that requires every type of processing unit to be claimed in one dependent claim. Thus, there is no inconsistency in (or rule prohibiting) setting forth some types of processing units in dependent claims 2-4, 7-10, 12-15 and others in claims 16-18. While a particular processing unit may be excluded from a particular dependent claim, it is not excluded from being claimed separately as the Examiner appears to be suggesting.

Accordingly, the Applicants respectfully request withdrawal of the rejections and allowance of claims 16-18.

**B. The Section 102 Rejections**

Claims 1, 4-6, 9-11, 14 and 15 were again rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Fee et al., U.S. Patent 5, 726,788, (hereinafter “Fee”). Applicants disagree and traverse these rejections for at least the following reasons.

Applicants again respectfully submit that Fee fails to teach or suggest a connection device that comprises an optical switch that receives ULR optical signals and connects at least one non-dedicated processing unit to one or more of the received signals based on a characteristic of each signal as in claim 1 and its dependent claims.

In contrast, Fee is silent with respect to the type of optical signals involved. Further, Applicants believe that Fee is not directed towards ULR signals because it repeatedly discloses the need for amplification of an optical signal by an amplifier 210 before the signal is input into an optical interface 208 or backplane 308 which, in turn, are connected to functional units 302. It is a characteristic of ULR signals that amplification is not always required; the opposite of the signals disclosed in Fee.

The Examiner takes the position that Fee is directed at ULR signals because Fee “addresses the need for keeping the signal strong”. The Applicants note that this a characteristic of many optical networks, not just ULR networks. Even though a ULR network has such a characteristic, this is not the feature that distinguishes ULR networks over non-ULR networks. In sum, the fact the Fee may keep signals strong is no indication that it is directed at ULR signals or networks.

The Examiner also states that the Applicants' disclosure supports an interpretation that Fee is directed at ULR signals/networks because the instant specification states that "simple amplification" is used in ULR networks. As the Applicants have stated before, while amplification of an optical signal in a ULR network may sometimes be necessary, it is not always required as are the signals in Fee.

The Examiner's positions notwithstanding, the Applicants respectfully submit that Fee simply is not directed to ULR signals or networks. There is no explicit disclosure of such signals/networks in Fee (as there is in the instant specification) and there is nothing in Fee that would suggest to one skilled in the art that Fee's techniques could be used in ULR networks, unless the required amplification always used in Fee is removed. However, such removal would change Fee's principle of operation which is impermissible (see MPEP §2143.01).

Fee also fails to disclose or suggest non-dedicated processing units. Though Fee's functional units 302 can apparently handle more than one optical signal (though that fact is not altogether clear from a reading of Fee), the units appear to be dedicated to a limited set of signals. In contrast, the processing units in the claims of the present invention are not dedicated to any one or more optical signals. Because of this, the claimed processing units can be used to improve the characteristics of hundreds, if not thousands, of optical signals (see the specification, paragraph 28). Further indication that Fee is dedicated to a set number of signals is the statement in Fee that "multiple input/output switches may be built by cascading basic one-by-one switching blocks" (column 5, lines 38-40). Said another way, because the switch 308 is dedicated to a set number of signals/links, additional switches are needed to service other signals/links.

The Examiner takes the position that Fee does disclose non-dedicated processing units because an “optical signal can be routed to any one of the functions or processing units”. However, as explained in the Applicants’ last response the specification uses the words “non-dedicated” to mean not dedicated to a single link. The fact that a dedicated set of links in Fee may be connected to any one of its dedicated functional blocks does not make the blocks “non-dedicated” because these blocks can only be used with a limited set of signals.

Because Fee does not teach each and every feature of the claimed inventions, Fee cannot provide a basis for a rejection under 35 U.S.C. §102. Withdrawal of the rejections and allowance of claims 1, 4-6, 9-11, 14 and 15 is respectfully requested.

**C. The Section 103 Rejections**

Claims 2, 7 and 12 were again rejected under 35 U.S.C. 103(a) as being unpatentable over Fee in view of Wong et al., US Patent 6,624,927 (hereinafter “Wong”). Claims 3, 8 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fee in view of Sharma et al. US Patent 6,331,906 (hereinafter “Sharma”). Applicants respectfully disagree and traverse these rejections for at least the following reasons.

Claims 2, 3, 7, 8, 12 and 13 are allowable at least because these claims depend from allowable claims 1, 6 and 11 for the reasons set forth above as well as on their own merits. Accordingly, Applicants respectfully request withdrawal of the pending rejections and allowance of claims 2, 3, 7, 8, 12 and 13.

**D. Entry of this Request for Reconsideration**

Entry of this Request for Reconsideration (“Request”) is solicited because the Request: (a) places the application in condition for allowance for the reasons discussed herein; (b) does not raise any new issues requiring further search and/or consideration; (c) does not present any

additional claims without canceling the corresponding number of finally rejected claims; and (d) places the application in better form for appeal, if an appeal is necessary.

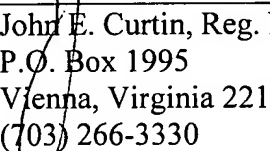
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John E. Curtin at the telephone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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